

QUARTERLY PROGRESS REPORT
October 1 to December 31, 1967

New England Research Application Center
University of Connecticut
Storrs, Connecticut 06268

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NSR 07-002-029

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SUMMARY

A general review of progress under NASA contract No. NSR 07-002-029 for the period in question is presented. Minor staff changes and a slight shift in the emphasis of NERAC's approach to its contract responsibilities is noted. Observations are made about the so-called hypotheses, the validity of which the Regional Dissemination Centers are testing.

Fifty organizations have retained NERAC's services since the beginning of the project resulting in 77 Retrospective and 35 Current Awareness searches. In addition 85 Retrospective Searches have been performed for sister Regional Dissemination Centers.

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I. General Progress

As with past reports, progress during the quarter ending 31 December 1967 is presented in four sections that correspond to the organizational structure of the Center, namely Operations, Computer Operations, Application Services and Special Projects. This is done to preserve consistency, although certain staff changes and an increasing awareness of the interaction and the inter-dependence of these sections of this organizational structure tend to blur these distinctions.

In organizational matters, Sheldon Busansky's leaving made it necessary to redeploy the effort of Philip Wright who assumed the position of Associate Director-Application Services. Towards the end of the period, Robert Benjaminson began to devote half-time to Application Services. Tadelusz Siek transferred the location of his work to the Boston Regional Office. It is becoming increasingly clear that the effort of the Application Service Division requires intensification.

It is convenient here, to comment on the "hypotheses" which the Regional Dissemination Centers were established to test, in so far as NERAC's limited experience is any guide. These "hypotheses" follow, associated with a NERAC comment where appropriate and relevant.

1. That RDC activity would stimulate the host institution to reach out to establish further ties with industries in the region

and otherwise build bridges between the government, university and industrial communities.

NERAC Comment

NERAC is stimulating industry to establish ties with the University. Quoting two recently visited prospects, "I have been meaning to visit Storrs for some years now to become acquainted with the people and the facilities, but just haven't gotten to it." (D.G. Brubaker, President, Lewis Engineering Company, Naugatuck, Connecticut.) "Another reason that we will use your NERAC's service is to support the University and get closer ties with it." (W.D. France, Director, Metals Research Department, Scovill--Mill Products Division, Waterbury, Connecticut.

2. That the existence of the RDC would upgrade the quality of teaching by accelerating the introduction of new knowledge into the classroom.

NERAC Comment

The performance and continuation of searches for faculty members is one step in this direction.

3. That the universities would serve as the "trusted sources" of knowledge for regional industry.

4. That the RDC would contribute importantly--and, hopefully, measurably--to regional economic growth.

5. That the RDC's would develop into regional focal points for other governmental technology transfer and technical assistance programs.

NERAC Comment

The increasing interest of such State and Regional Centers as the Connecticut Research Commission, the Connecticut Develop-

ment Commission and the New England Regional Commission testify to the veracity of these three hypotheses. Two of these bodies have commissioned work and the third, the Connecticut Development Commission, is using NERAC as one of their resources for these purposes.

6. That the RDC's would serve as catalysts to develop, and later serve as key elements in, a national network of information systems.

NERAC Comment

NERAC is moving in this direction already with its loose association with Center for Information Services at University of Akron and preliminary contacts with about 20 other information centers.

7. That the RDC would educate its clients to the importance of looking outside their normal sources for externally generated technology transfer.

NERAC Comment

The relative immaturity of NERAC's experience to date makes meaningful comment impossible at this stage.

II. Operations

A. Information Processing

1. Retrospective Searches Completed
 - for clients 55
 - for Regional Dissemination Centers . 85
 - for University of Connecticut
Research Foundation 22
2. Current Awareness Searches
Completed for Clients 35
3. Number of Documents Ordered 292

B. Systems and Procedures

Computer simulation of the NERAC operation.

The operation has been analyzed and flowcharted, and preliminary values have been assigned to the operational boxes. GPSS/360 has been chosen as the simulation language for the computer. Some preliminary programming work has been done, but further work awaits replacement of a programmer.

C. Cost Accounting : Unanticipated Abstract Card Cost

NERAC, when starting operations, was unable to acquire any sets of abstract cards, prior to 1967, from NASA/STIF. This eventuality was not expected at contract negotiation and was not allowed for in the budget.

NERAC obtained in an agreement with MRI/ASTRA four incomplete sets, which were then sorted. Two sorted sets, with tabs inserted where cards were missing, were returned to MRI. The remaining two sets were completed back through 1963 by cutting and pasting. Costs were as follows:

Cost of Acquisition for MRI/ASTRA	\$: 1113.38
Cost of Labor (Sorting, cutting, pasting) . .	10704.55
Materials	<u>184.84</u>
Total	\$12002.77

D. Faculty Searches

Funds were obtained from University of Connecticut Research Foundation to supply search services to faculty members. Within one week after the service was announced. 36 requests for further information were received.

E. Visits to NERAC

During the report period, NERAC hosted the following people: Messrs. Dennison and Hills of National Aeronautics and Space Administration--Electronics Research Center; The Directors of the Libraries of the six New England State Universities; Mrs. C. Stocking and Miss R. Smith, Heads respectively of the Government Publication and Reference Sections of the University of Connecticut Library; representatives of several industrial companies; representatives of the New England Regional Commission; and, a representative of the College of Business Administration, Boston College.

F. Visits by NERAC

To Documentation, Incorporated

To North Carolina Science and Technology Research Center

To the Small Business Administration, Boston Regional Office

To the Connecticut Research Commission

To a meeting of the Committee for the New England Marine Resources Information Program

G. Future

1. Trend analyses have begun and results will be incorporated in the next quarterly report.
2. When NASA stops supplying document hard copy in January, NERAC plans to buy N-documents from Aerospace Research Applications Center until our volume reaches the point where it becomes feasible to produce them, in-house, from microfiche.

III. Computer Operations:

During this reporting period, NERAC computer operations have continued as a highly reliable, almost independent retrieval system with minimal computer operator interaction. Even though computer searches have been run almost daily during this period, all searches have run to completion and all computer output has been valid. As in the previous period, all computer searches have been performed within a guaranteed 24-hours turn-around time.

A summary of the progress for this period now follows:

A. Physical Setup

1. No additional physical equipment has been acquired.
2. Negotiations are continuing with IBM to insure a satisfactory preventive maintenance program so as to minimize computer downtime.

B. Program Development

1. Minor changes have been made in the NERAC computer search system to improve its operating convenience and execution time.
2. Provision has been made for accepting TECH BRIEF accessions on the linear file.

C. Staff Development and Education

1. Several students have completed non-paid NERAC staff projects for academic credit.
2. During the Spring Semester, a graduate seminar will study the NERAC computer search system to see how it is affected by different hardware configurations.

D. Work Scheduled for Next Reporting Period.

1. Continued refinement of all computer routines.

2. Continued work and cost reduction studies such as TECH BRIEF searches and abstract reproduction.
3. Continued investigation of the feasibility of using remote terminal for strategy design work.
4. Investigation of the new 360 linear file format.

Summary of Computer Retrieval Searches for the Period
October 1 to December 31, 1967

Retrospective Searches

	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
No. Runs	19	14	14	47
No. Searches	81	49	81	211
Average No. of Searches/Run	4	4	4	-
Average No. Search Terms/Problem	12	10	7	-

Current Awareness Searches

	<u>Oct.</u>	<u>Nov.</u>	<u>Dec.</u>	<u>Total</u>
No. Runs	9	6	4	19
No. Searches	16	29	17	62
Average No. of Searches/Run	2	5	4	-
Average No. of Terms/Problem	6	5	7	-

IV. Application Services

The rate of industrial contact by a variety of methods has continued to increase. At the end of this quarter the situation was:

437 approaches made

294 responses achieved (67%)

Of these responses,

119 are active (40%)

61 are negative (21%)
 52 are passive (18%)
 12 are unresolved (4%)
 50* have resulted in the retention of NERAC's services (17%)

The geographical location of "clients" is:

Massachusetts 26
 Connecticut 18
 New York 2
 Vermont 1
 New Jersey 1
 Rhode Island 1
 Colorado 1

Of particular interest was the participation of the Application Services Division in the retention of NERAC's services by the University of Connecticut Research Foundation in an experimental exploration of the viability of subsidizing an effort to satisfy the hidden information requirements of faculty members. As noted earlier, the offered service was over-subscribed within one week.

Liaison with Federal and State agencies has been intensified. Several presentations have been made to local city groups of industrialists and business leaders. No particular pattern for effective "client" recruitment has yet emerged. Each situation has differing characteristics. A continuing and intensified exposure of NERAC's services to industry and others in the New England region must and will be maintained.

*Two of these relate to retainers for special services.

V. Special Projects

Of the twelve special projects listed in the previous progress report, one came to fruition during the quarter.

The Denver Research Institute retained NERAC for the provision of special advice and guidance in the establishment of a Center for the Analysis of Technology Transfer, (CATT).

In addition, minimal study efforts are being conducted in the following areas that affect NERAC policies, operations, and marketing strategies:

- Federal Agency patent, license and proprietary data policies.

- Technology and the new Federal Program aimed at crime prevention and detection.

- Technologically deprived industries in New England.

Other possible areas include:

- Further reduction of NERAC's feasibility study data.

- Study project with the MIT Sloan School.

- Study project with Prof. Bright of Harvard Business School--Technological Innovation.